RECREATION

Marinas and Boats

BACKGROUND

Marine recreation includes recreational activities on fresh and salt water; on ocean beaches; along the shores of rivers, streams, and lakes; and the waterfront of Puget Sound. Approximately 72 percent of all Washington households engage in recreational water activities (Washington Outdoors: Assessment and Policy Plan, IAC, 1990). These activities encompass a variety of pursuits: fishing, swimming, SCUBA diving, water skiing, sailing, and boating.

The Interagency Committee for Outdoor Recreation (IAC) presents data from 1987 in its Assessment and Policy Plan 1990-1995 on estimated annual visits for water activities. Washingtonians played on or near the water 23,753,000 times in that year. IAC projects growth for water-related activities by as much as 28 percent by the year 2000.

It has been estimated that 20 percent of Washington's households owns at least one boat. This means 500,000 boats in Washington's waters. People use boats recreationally in Puget Sound, lakes, and major rivers. Power boaters represent 90 percent of the boating public. Most boats are under 16 feet long.

Recreational boating contributes to the state economy; direct and indirect boating sales generated $895 million and $2.4 billion respectively in 1986 and provided jobs for an estimated 17,300 people statewide (1988 State of the Sound report by the Puget Sound Water Quality Authority).

The following general information about marinas and boats is summarized from Sea Grant publication WSG-AS 91-06, The Marina Industry in Washington State: Growth and Change, 1981-2000, Robert F. Goodwin, April 1991.

Within Washington's coastal areas, there are (approximately) 450 marinas which provide (approximately) 37,400 wet moorage slips. Most marinas are small, providing less than 200 slips. In contrast, a small number of marinas owned by public port authorities account for a disproportionate number of wet moorage slips - 15,000. Of five marinas having over 1,000 slips, four are owned by port authorities. Over half the total number of marinas are located in the central Puget Sound counties of King (85), Pierce (29), Kitsap (26), and Snohomish (13). The 29 marinas located in San Juan County reflect the popularity of that part of Washington State as a boater destination. Location and size of the fleet appears to be in approximate proportion to population centers.

Although difficult to quantify, Goodwin estimates that the total number of boats in Washington is in the range of 210,000 to 225,000. Current Washington State figures estimate that approximately 338,400 households own 440,000 recreational boats. Of this

number, about 255,593, or 58 percent, are powerboats. About 72 percent of all recreational boats use a gasoline engine of some kind. Canoes and kayaks make up about 13 per cent of the fleet, with roughly 55,268 units.

Most recreational boats, about 299,000 are stored on trailers and hauled to and from launch sites behind a motor vehicle. Statewide, motor boat owners have access to approximately 911 public launch sites (IAC, 1997). This figure generally reflects the additional large number of trailerable boats in the 16 to 26 foot length. The figure indicates a sizable fleet of recreational boats in both the coastal zone and central and eastern Washington, which is projected to increase by another 25,000 to 30,000 boats by the year 2000.

Nonpoint Pollution Associated with Marinas and Boats

There is a high potential for water quality degradation from raw sewage, contaminated bilge water, petroleum products, garbage and trash, paint scraping, and solvents being discharged into state waters by recreational boaters. However, exact numbers are not known.

Contaminants from marinas and recreational boating include sewage (and associated pathogens) and the toxicants contained in petroleum products and other materials used to maintain and repair boats. Discharges of treated and untreated sewage from boats may especially be a problem in smaller bays with poor water circulation, near shellfish beds and public swimming areas, and at marinas.

Since passage of the federal Clean Water Act in 1972, any boat with a toilet installed must have a marine sanitation device (MSD) to treat and/or hold sewage. Effective enforcement of this regulation by the U.S. Coast Guard, however, has proven to be a logistical impossibility. Educational programs are the most promising approach to reducing pollution from boating activities.

Contamination from recreational boats may be greatest at marinas and popular destination areas, where the concentration and disposal of wastes, including treated and untreated sewage, trash, petroleum products, and bilge water, may be significant problems. Marinas themselves, if improperly designed and sited, may cause water quality problems through habitat destruction and restricted flushing. However, marinas, destination sites, and other boating facilities can provide the services which are essential for safe and effective disposal of boat wastes, particularly sewage and petroleum products. Unfortunately, many marinas do not provide sewage pump-outs or recycling facilities.

MANAGEMENT MEASURES FOR MARINAS AND BOATS:

1. IIa Marina Flushing
2. IIb Water Quality Assessment
3. IIc Habitat Assessment
4. IId Shoreline Stabilization
5. IIe Stormwater Runoff
6. IIf Fueling Station Design
7. IIg Sewage Facilities
8. IIIa Solid Waste
9. IIIb Fish Waste
10. IIIc Liquid Materials
11. IIId Petroleum Control
12. IIIe Boat Cleaning
13. IIIf Public Education
14. IIIg Maintenance of Sewage Facilities
15. IIIh Boat Operation

Management measures IIa - IIg are sometimes referred to as the "marina siting and design" measures, and IIIa - IIIh, the "marina operations" measures.

1998 FINDING FROM EPA AND NOAA

Findings:
For the siting and design of marinas, Washington's program includes management measures in conformity with the 6217(g) guidance except for water quality assessment, shoreline stabilization, storm water runoff, and fueling station design. The Washington program includes enforceable policies and mechanisms to ensure implementation of the siting and design management measures except for water quality assessment, shoreline stabilization, stormwater management fueling station design and the sewage facility management measure. For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation throughout the 6217 management area.

Condition:
Within two years, Washington will include in its program: 1) for siting and design of marinas, management measures in conformity with the 6217(g) guidance for water quality assessment, shoreline stabilization, storm water runoff, and fueling station design and enforceable policies and mechanisms to ensure implementation of the water quality assessment, shoreline stabilization, stormwater runoff, fueling station design, and sewage facility management measures throughout the 6217 management area; and 2) for operation and maintenance of marinas, management measures in conformity with the 6217(g) guidance. Within one year, the State will develop a strategy (in accordance

with Section XIII, page 14) to implement the operation and maintenance management measures throughout the 6217 management area.

***Rationale**:*
The marina flushing and habitat assessment measures, are implemented through the Hydraulic Code, which requires projects that "will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state" to obtain state approval to "ensure the proper protection of fish life." Washington's Clean Vessel Program provides a strong funding program to increase the number of marina pump-out facilities, and includes appropriate management measures, but can not ensure implementation unless voluntarily agreed to by the operator.

While the State lists a number of other programs that may have relevance to marinas, it does not provide information indicating that these programs in their totality do or do not achieve conformity with the management measures. Similarly, the State has identified a number of statutes including the Hydraulic Code, Shoreline Management Act, Nonpoint Rule, Oil Spill Prevention and Response Act, and Hazardous Waste Management Act, each of which contain provisions which could be applied to marina design, operation, or maintenance. However, it is unclear how these will be used to ensure implementation of the management measures.

WAC 400-12, which provides for watershed planning to protect the waters of Puget Sound, includes marinas and boats as a Plan topic. The rule promotes education as the key implementation tool, but is discretionary in noting that measures may be developed for many of the types of activities included in the 6217 guidance. In addition, the State supports a boater education program through the State Parks and Recreation Commission. A Boater's Guide is available that discusses rules, regulations and safety requirements. Also, information covers discarding solid and liquid waste materials, boat maintenance, sewage and sanitation, shellfish protection, and a map of pump-out locations. These educational efforts, however, cannot ensure implementation of the measures.

DESCRIPTION OF CURRENT PROGRAMS IN WASHINGTON

The state's Shoreline Management Act, the Hydraulic Project Approval Process, and the State Environmental Policy Act address the management measures for marina siting and design. The SEA process is designed to address all adverse impacts of a project proposal including impacts related to marina flushing, water quality, stormwater management, habitat, shoreline stabilization, and fuel station design.

Additionally, the state-delegated NPDES permit program contains enforceable mechanisms to address stormwater runoff from facilities that conduct hull maintenance activities. In conjunction with the Boatyard General Permit, the Washington Department of Ecology has issued an advisory prohibiting boats painted with sloughing or ablative paints from being scrubbed in the water.

In 1997, Ecology conducted a year-long Marina and Boatyard Technical Assistance outreach campaign, producing a manual to address environmental issues at marinas. The "Resource Manual for Pollution Prevention in Marinas" addresses the concerns outlined in the Nonpoint Plan. The agency has also participated in the annual Clean Boating Campaigns that focus outreach to boaters.

The Washington Sea Grant Small Spill Prevention Education Program is authorized to develop strategies to meet shoreside oil and hazardous substance handling and disposal needs of targeted groups including marinas. Finally, Department of Natural Resources requires leases for development of aquatic lands of the state and these may include conditions for protection as terms of the lease.

An extensive education program for boaters is conducted by the State Parks and Recreation Commission. Along with posters, brochures and similar media, a Boater's Guide is distributed which contains safety tips as well as environmental information. For example, a map showing locations of marine sewage pump-out facilities is included as is a summary of disposal regulations for waste.

Management Measure Number IIA:
Marina Flushing

Description from Federal Guidance

Site and design marinas such that tides and/or currents will aid in flushing of the site or renew its water regularly.

1995 Finding from EPA and NOAA

"For the siting and design of marinas, Washington's program includes management measures in conformity with the 6217(g) guidance except for water quality assessment, shoreline stabilization, storm water runoff, and fueling station design. The Washington program includes enforceable policies and mechanisms to ensure implementation of the siting and design management measure except for water quality assessment, shoreline stabilization, stormwater management, fueling station design, and the sewage facility management measure. For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation throughout the 6217 management area.

The marina flushing and habitat assessment measures are implemented through the Hydraulic Code, which requires projects that "will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state" to obtain State approval to "ensure the proper protection of fish life."

Existing Statute(s) and Regulations

Hydraulic Code (Chapter 75.20 RCW)
Chapter 220-110 WAC
Shoreline Management Act (Chapter 90.58 RCW)
Chapter 173-16 RCW, Guidelines for Shoreline Master Programs

Description of Current Programs in Washington

The design criteria established in the Shoreline Master Program Guidelines for marinas includes:

> "Shallow-water embayments with poor flushing action should not be considered for overnight and long-term moorage facilities."
> WAC 173-16-050(5)(e)

Permits under the Hydraulic Code are issued only if the project ensures "the proper protection of fish life." Generally, a stagnant area where pollutants are accumulating is

not conducive to fish spawning, growth, or habitation. Proper flushing of a marina is necessary to ensure maintenance of appropriate fish habitat.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IIB:
Water Quality Assessment

Description from Federal Guidance

Assess water quality as part of marina siting and design.

1995 Finding from EPA and NOAA

Findings are the same as for management measure IIA. See page 122.

Existing Statute(s) and Regulations

State Environmental Policy Act (Chapter 43.21A RCW)
Chapter 197-11 WAC
Hydraulic Code (Chapter 75.20 RCW)
Chapter 220-110 RCW

Description of Current Programs in Washington

The State Environmental Policy Act checklist requires project proponents to perform an extensive investigation of impacts on water and aquatic habitat. The Hydraulic Permit does not allow net adverse impacts to aquatic life and ecosystems. The purpose of the hydraulic permit is:

> "…to provide protection for all fish life through the development of a State-wide system of consistent and predictable rules. The department will coordinate with other local, State, and federal regulatory agencies, and tribal governments, to minimize regulatory duplication. Pursuant to Chapter 75.20 RCW, this chapter establishes regulations for the construction of hydraulic project(s) or performance of other work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the State, and sets forth procedures for obtaining a hydraulic project approval (HPA). In addition, this chapter incorporates criteria generally used by the department for project review and conditioning HPAs." WAC 222-110-010

The rules governing hydraulic projects states:

> "A hydraulic project application shall be denied when, in the judgment of the department, the project will result in direct or indirect harm to fish life unless adequate mitigation can be assured by conditioning the HPA or modifying the proposal. If approval is denied, the department shall provide the applicant, in writing, a statement of the specific reason(s) why and how the proposed project would adversely affect fish life." WAC 222-110-030(12)

Of special note is the broadness of the definition of fish as a variety of aquatic life, and by implication, including ecosystems which provide habitat for these species:

> "Fish life" means all fish species, including but not limited to food fish, shellfish, game fish, and other non-classified fish species and all stages of development of those species." WAC 222-110-020(13)

The hydraulic rules require that a project be halted if a water quality problem occurs during construction.

The State currently monitors water quality in Puget Sound through the Puget Sound Ambient Water Quality Monitoring Program. Local governments also regularly monitor water quality.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IIC:
Habitat Assessment

Description from Federal Guidance

Site and design marinas to protect against adverse effects on shellfish resources, wetlands, submerged aquatic vegetation, or other important riparian and aquatic habitat areas as designated by local, State, or Federal governments.

1998 Finding from EPA and NOAA

Findings are the same as for management measure IIA.

Existing Statute(s) and Regulations

State Environmental Policy Act (Chapter 43.21A RCW)
    Chapter 197-11 WAC
Hydraulic Code (Chapter 75.20 RCW)
    Chapter 220-110 RCW
GMA Critical Area Designation and Protection (Chapter 36.70A RCW)

Description of Current Programs in Washington

Same as for Management Measure IIB, described previously

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IID:
Shoreline Stabilization

Description from Federal Guidance

Where shoreline erosion is a nonpoint source pollution problem, shorelines should be stabilized. Vegetative methods are strongly preferred, unless structural methods are more cost effective, considering the severity of wave and wind erosion, offshore bathymetry, and the potential adverse impact of other shorelines and offshore areas.

1998 Finding from EPA and NOAA

Findings are the same as for management measure IIA. See page 122.

Existing Statute(s) and Regulations

Hydraulic Code (Chapter 75.20 RCW)
Chapter 222-110 WAC

Description of Current Programs in Washington

Shoreline stabilization is generally not an issue in Washington. Localized problems do occur and are mostly associated with the upland uses that de-stabilize slopes. In many cases, shorelines of the state are starved for sediment and as a result habitat is degraded and beaches are eroding.

Where shoreline stabilization is necessary, hydraulic permits require all projects to address the following as a condition of approval:

> "Bio-engineering is the preferred method of bank protection where practicable. Bank protection projects shall incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. The following technical provisions shall apply to bank protection projects:
>
> (1) Bank protection work shall be restricted to work necessary to protect eroding banks.
>
> (2) Bank protection material placement waterward of the ordinary high water line shall be restricted to the minimum amount necessary to protect the toe of the bank, or for installation of mitigation features approved by the department.
>
> (3) The toe shall be designed to protect the integrity of bank protection material.
>
> (4) Bank sloping shall be accomplished in a manner that avoids release of overburden material into the water. Overburden material resulting from the project shall be deposited so as not to reenter the water.

(5) Alteration or disturbance of the bank and bank vegetation shall be limited to that necessary to construct the project. All disturbed areas shall be protected from erosion, within seven calendar days of completion of the project, using vegetation or other means. The banks, including riprap areas, shall be revegetated within one year with native or other approved woody species. Vegetative cuttings shall be planted at a maximum interval of three feet (on center), and maintained as necessary for three years to ensure eighty percent survival. Where proposed, planting densities and maintenance requirements for rooted stock will be determined on a site-specific basis. The requirement to plant woody vegetation may be waived for areas where the potential for natural revegetation is adequate, or where other engineering or safety factors preclude them.

(6) Fish habitat components such as logs, stumps, and/or large boulders may be required as part of the bank protection project to mitigate project impacts. These fish habitat components shall be installed according to an approved design to withstand 100-year peak flows.

(7) When rock or other hard materials are approved for bank protection, the following provisions shall apply:
(a) Bank protection material shall be angular rock. The project shall be designed and the rock installed to withstand 100-year peak flows. River gravels shall not be used as exterior armor, except as specifically approved by the department.
(b) Bank protection and filter blanket material shall be placed from the bank or a barge. Dumping onto the bank face shall be permitted only if the toe is established and the material can be confined to the bank face."

WAC 222-110-050

Additional Needs

Adequate programs exist to meet this management measure.

Actions to implement this management measure

None required

Management Measure Number IIE:
Stormwater Runoff

Description from Federal Guidance

Implement effective runoff control strategies which include the use of pollution prevention activities and the proper design of hull maintenance areas.

Reduce the average annual loadings of total suspended solids (TSS) in runoff from hull maintenance areas by 80 percent. For the purposes of this measure, an 80 percent reduction of TSS is to be determined on an average annual basis.

1998 Finding from EPA and NOAA

Findings are the same as for management measure IIA.

Existing Statute(s) and Regulations

Water Pollution Control Act (Chapter 90.48 RCW)
Local implementation of stormwater control measures (Chapter 36.70A.070(1) RCW)

Description of Current Programs in Washington

The NPDES Boatyard General Permit issued by Ecology under RCW 90.48 requires that all commercial businesses engaged in repair of recreational vessels including facilities that conduct "hull maintenance activities" apply for coverage under the permit. The permit requires facilities to follow best management practice to control pollution in stormwater runoff. In addition, Ecology has issued an advisory prohibiting divers from cleaning boats painted with sloughing or ablative paint in the water.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IIF:
Fuel Station Design

Description from Federal Guidance

Design fueling stations to allow for ease in cleanup of spills.

1998 Finding from EPA and NOAA

Findings are the same as for management measure IIA. See page 122.

Existing Statutes and Regulations

Shoreline Management Act (Chapter 90.58 RCW)
Chapter 173-16 RCW, Guidelines for Shoreline Master Programs

Description of Current Programs in Washington

The Guidelines for Shoreline Master Programs requires that for marinas:

> "Special attention should be given to the design and development of operational procedures for fuel handling and storage in order to minimize accidental spillage and provide satisfactory means for handling those spills that do occur." WAC 173-16-050(5)(d)

The State has a program in place through the Washington Sea Grant Program. RCW 90.56.090 establishes the small spill prevention education program. The program targets small spills from fishing vessels, ferries, ships, ports, marinas, and recreational boats. It includes a series of training workshops and the development of education materials.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Actions to improve water quality

- Examine the needs for a fuel dock education program (Rec 5)
- Examine new approaches to prevent spills from boaters overfilling their gas tanks (Rec 6)

Management Measure Number IIG:
Sewage Facilities

Description from Federal Guidance

Install pump-out, dump station, and restroom facilities where needed at new and expanding marinas to reduce the release of sewage to surface waters. Design these facilities to allow ease of access and post signage to promote use by the boating public.

1998 Finding from EPA and NOAA

Findings are the same as for management measure IIA, with the following additional comments:

"Washington's Clean Vessel Program provides a strong funding program to increase the number of marina pump-out facilities, and includes appropriate management measures, but cannot ensure implementation unless voluntarily agreed to by the operator.

In addition, the State supports a boater education program through the State Parks and Recreation Commission. A Boater's Guide is available that discusses rules, regulations and safety requirements. Also, information covers discarding solid and liquid waste materials, boat maintenance, sewage and sanitation, shellfish protection, and a map of pump-out locations. These educational efforts, however, cannot ensure implementation of the measures."

Existing Statute(s) and Regulations

Water Pollution Control Act (Chapter 90.48 RCW)
Recreational Vessels Act, Sewage Disposal Initiative (Chapter 88.12.295)
Puget Sound Water Quality Act (Chapter 90.71 RCW)

Description of Current Programs in Washington

The placement of marine sewage facilities is the responsibility of State Parks, in coordination with Ecology, Health, and Natural Resources, as well as the Puget Sound Action Team and the Interagency Committee for Outdoor Recreation.

There are 106 public and privately owned facilities across the state. Most of the private facilities were placed through a grant program. The Comprehensive Boat Sewage Management Plan for Washington State prepared by the Parks and Recreation Commission analyzes boating traffic patterns in the state and designates locations where additional sewage facilities are needed through criteria established in the plan. If the primary location cannot be secured, alternate locations are designated so that complete coverage of the state's waters are achieved. The actions in the current plan have been completed, and sufficient facilities now exist. In addition, the plan includes a boater education program for marine sewage disposal, and maps of pump-out locations.

Ecology is in the process of updating the Guidelines for Shoreline Master Programs. The new guidelines will be adopted in July, 2000. This update will address boating facilities and requirements for sewage pump-outs and wash-off stations.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Actions to improve water quality

To enhance public services, the state will:

- Update the Comprehensive Boat Sewage Management Plan for Washington State. (Rec 7)

Management Measure Number IIIA:
Solid Waste

Description from Federal Guidance

Properly dispose of solid wastes produced by the operation, cleaning, maintenance, and repair of boats to limit entry of solid wastes to surface waters.

1998 Finding from EPA and NOAA

"For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for route the 6217 management area."

Existing Statute(s) and Regulations

Model Litter Control Act (Chapter 70.93 RCW)
Solid Waste Management --Reduction and Recycling-- Act (Chapter 70.95 RCW)
Water Pollution Control Act (Chapter 90.48 RCW)
Marine Pollution Act (MARPOL)

Description of Current Program

As noted in Chapter 3, the indiscriminate disposal of solid waste on land or in the water is explicitly prohibited by law. In addition, the Solid Waste--Reduction and Recycling--Management Act requires local governments to provide facilities for the proper recycling and disposal of solid waste.

RCW 70.93.095 requires that marinas with 30 slips or more provide recycling receptacles. This is an enforceable requirement.

The Marine Pollution Act (MARPOL) specifically prohibits the dumping of any plastics from any vessel in navigable waters and restricts the dumping of other types of refuse from boats. All vessels over 26 feet must display a durable placard explaining the disposal regulations. Vessels 40 feet and over must write a waste management plan.

Ecology has authority to take enforcement action against anyone who dumps material into the waters of the state (RCW 90.48.080).

Additional Needs

Adequate programs exist to meet this management measure.

Actions to implement this management measure

None required

Management Measure Number IIIA:
Fish Waste

Description from Federal Guidance

Promote sound fish waste management through a combination of fish-cleaning restrictions, public education, and proper disposal of fish.

1998 Finding from EPA and NOAA

"For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for the 6217 management area."

Existing Statute(s) and Regulations

Model Litter Control Act (Chapter 70.93 RCW)
Solid Waste Management --Reduction and Recycling-- Act (Chapter 70.95 RCW)
Water Pollution Control Act (Chapter 90.48 RCW)

Description of Current Programs in Washington

The Water Pollution Control Act (Chapter 90.48 RCW) prohibits the discharge of organic or inorganic matter into the waters of the State. This includes fish waste. In addition, there are requirements for fish cleaning stations at certain types of park facilities.

Solid waste in Washington State is defined as:

> "...all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials." RCW 70.95.030(22)

Under this definition, fish waste is considered a solid waste. Education programs for solid waste are authorized under the Model Litter Control Act. In addition, local governments are required to engage in public education as part of their programs to manage solid waste.

Ecology has authority to take enforcement action against anyone who dumps material into the waters of the state (RCW 90.48.080).

Additional needs

Adequate programs exist to meet this management measure.

Actions to implement this management measure

None required.

Management Measure Number IIIB:
Liquid Materials

Description from Federal Guidance

Provide and maintain appropriate storage, transfer, and containment and disposal facilities for liquid material, such as oil, harmful solvents, antifreeze, and paints, and encourage recycling of these materials.

1998 Finding from EPA and NOAA

For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for route the 6217 management area.

Existing Statute(s) and Regulations

Used Oil Recycling Act (Chapter 70.95I RCW)
Hazardous Waste Management Act (Chapter 70.105 RCW)'
Chapter 173-303 WAC, Dangerous Waste Regulations
Water Pollution Control Act (Chapter 90.48 RCW)

Description of Current Program

The Water Pollution Control Act (RCW 90.48.080) prohibits the discharge of organic or inorganic matter into the waters of the state. This includes any kind of liquids that can be considered detrimental to the environment.

This requirement parallels the State's Dangerous Waste Regulations (Chapter 173-303) under the Hazardous Waste Management Act (Chapter 70.105 RCW). Any waste that enters the environment or has the potential to enter the environment, such as a spill or discharge to water, becomes dangerous waste, and the site falls under the Dangerous Waste Regulations.

The Hazardous Waste Management Act also requires local governments to provide for the collection and disposal of these wastes through their moderate risk waste programs established in RCW 70.105.220 et seq.

Used oil is also required to be collected and recycled under the Used Oil Recycling Act (Chapter 70.95I RCW). Disposal of used oil by other than recycling is prohibited.

Although the information regarding marinas cannot be separated out, in 1996, the state collected and recycled:

Material	Amount Collected (lbs)	Amount Energy Recovery (lbs)	Amount Recycled (lbs)
Used oil*	8,792,792	3,166,228	856,876
Solvents	1,120,416	958,468	0
Antifreeze	373,904	0	286,590
Latex Paint	1,511,491	0	611,529
Oil Based Paint	1,740,277	1,397,467	61,824
Total	**13,538,880**	**5,522,163**	**1,816,819**

*The disposal of 3,781,141 lbs of used oil went unreported, which probably means it was used for energy recovery onsite or locally. This use does not have to be reported.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Actions to improve water quality

- Facilitate the management and treatment of contaminated bilgewater at public and private marinas (Rec 9)

- Promote household hazardous waste collection at marinas (Rec 11)

Management Measure Number IIID:
Petroleum Control

Description from Federal Guidance

Reduce the amount of fuel and oil from boat bilges and fuel tank air vents entering marina and surface waters.

1998 Findings from EPA and NOAA

For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation throughout the 6217 management area.

Existing Statute(s) and Regulations

Oil and Hazardous Substance Spill Prevention and Response Act (Chapter 90.56 RCW)
Water Pollution Control (Chapter 90.48 RCW)
Hazardous Waste Management Act (Chapter 70.105 RCW)

Description of Current Program

The state has a program in place through the Washington Sea Grant Program. RCW 90.56.090 establishes the small spill prevention education program. The program targets small spills from fishing vessels, ferries, ships, ports, and marinas, and recreational boats. It includes a series of training workshops and the development of education materials.

The Water Pollution Control Act (Chapter 90.48 RCW) prohibits the discharge of organic or inorganic matter into the waters of the State. This includes any kind of liquids that can be considered detrimental to the environment.

This management measure parallels the State's Dangerous Waste Regulations (Chapter 173-303) under the Hazardous Waste Management Act (Chapter 70.105 RCW). Any waste that enters the environment or has the potential to enter the environment, such as a spill or discharge to water, becomes dangerous waste, and the site falls under the Dangerous Waste Regulations.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IIIE:
Boat Cleaning

Description from Federal Guidance

For boats that are in the water, perform cleaning operations to minimize, to the extent practicable, the release to surface waters of (a) harmful cleaners and solvents, and (b) paint from in-water hull cleaning.

1998 Findings from EPA and NOAA

For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for route the 6217 management area.

Existing Statute(s) and Regulations

Water Pollution Control Act (Chapter 90.48 RCW)

Description of Current Program

The NPDES Boatyard General Permit issued by the Ecology under RCW 90.48 requires that all commercial businesses engaged in repair of recreational vessels including facilities that conduct "hull maintenance activities" apply for coverage under the permit. The permit requires facilities to follow best management practice to control pollution in stormwater runoff. Ecology has issued an advisory prohibiting divers from cleaning boats painted with sloughing or ablative paint in the water.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Actions to improve water quality

To further prevent pollution from boat cleaning, the State will

- Develop additional policies and guidance on cleaning and maintenance practices of boaters (Rec 10)

Management Measure Number IIIF:
Public Education

Description from Federal Guidance

Public education/outreach/training programs should be instituted for boaters, as well as marina owner and operators, to prevent the improper disposal of polluting material.

1998 Finding from EPA and NOAA

"For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for the 6217 management area."

Existing Statute(s) and Regulations

Federal Clean Vessel Act (33 USC 1322)
Model Litter Control Act (Chapter 70.93 RCW)
Solid Waste Management--Reduction and Recycling--Act (Chapter 70.95 RCW)
Hazardous Substance Information Act (Chapter 70.102 RCW)
Puget Sound Water Quality Act (Chapter 90.71 RCW)

Description of Current Program

Each of the above acts provides for public education in the proper management of waste materials:

- The Clean Vessel Act is implemented by the State Parks and Recreation Commission, and includes the publication and distribution of the Boater's Guide. The Boater's Guide provides information and education to boaters on safety and environmental issues, including a map showing the location of all pumpouts.

- The Model Litter Control Act provides for public education in the management and disposal of solid wastes, with preference for reduction and recycling. This act also includes the Recycle Hotline, a free telephone and Internet information service.

- The Solid Waste Management--Reduction and Recycling--Act requires local governments, principally counties and cities, to provide public education on the proper disposal of solid waste.

- The Hazardous Substance Information Office provides information to the public on the identification and proper management of hazardous wastes.

- The Puget Sound Water Quality Act provides for public education by the Puget Sound Action Team, as well as the awarding of grants for public education at the local level.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Actions to improve water quality

- Coordinate agency educational efforts for boaters on environmentally safe practices, such as for the Clean Boating Week held last year. (Rec 8)

Management Measure Number IIIG:
Maintenance of Sewage Facilities

Description from Federal Guidance

Ensure that sewage pump-out facilities are maintained in operational condition and encourage their use.

1998 Finding from EPA and NOAA

"For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for the 6217 management area."

Existing Statute(s) and Regulations

Federal Clean Vessel Act (33 USC 1322)
Recreational Vessels Act, Sewage Disposal Initiative (Chapter 88.12.295)

Description of Current Program

In order to maintain pump-outs in a usable condition, the State Parks and Recreation Commission performs periodic, random inspections of pump-out facilities that are public or have been funded by public monies. Parks and Recreation also surveys marina owners and boaters every few years to ascertain the public perception of the pump-out program.

The Department of Fish and Wildlife has established a toll-free number where, among other actions, citizens and boaters can report non-working pump-out facilities.

Additional Needs

None

Actions to implement this management measure

Adequate programs exist to meet this management measure.

Management Measure Number IIIH:
Boat Operation

Description from Federal Guidance

Restrict boating activities where necessary to decrease turbidity and physical destruction of shallow-water habitat.

1998 Finding from EPA and NOAA

"For operation and maintenance of marinas, Washington's program does not include management measures in conformity with the 6217(g) guidance. The State has identified a backup enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation for the 6217 management area."

Existing Statute(s) and Regulations

Local ordinances

Description of Current Program

Many local governments and lake associations have established speed limits on the lakes in Washington in order to prevent shoreline erosion, which creates liability in the form of decreased property values for the landowner where the erosion is taking place.

Local marinas have established speed limits within the marinas in order to prevent damage to facilities and to limit liability on potential damage to other boats. Counties, cities, and ports are concerned with the loss of property, and to protect the health and safety of people.

Apart from the above concerns, Washington has not found boater operation to be a problem for water quality in the state.

Additional Needs

None

Actions to implement this management measure

None

Off-Road Vehicles

In 1971, the Washington State legislature created the All-Terrain Vehicle Program that was subsequently promulgated into Chapter 46.09 RCW. This law, as later amended, established a fund source for the development and management of off-road recreation. The purpose of the law is to define and regulate the use of off-road vehicles, including a mechanism to provide funds for the planning, maintenance, and management of off-road vehicles. The Interagency Committee for Outdoor Recreation is the primary administrator of the fund.

Description from Federal Guidance

The numbers and types of off-road vehicle (ORV) users are not known. There are several federal, State, and local agencies who manage off-road vehicles facilities and trails. The 1993 Washington Off-Road Vehicle Guide lists 34 major ORV recreation areas. Of these, 28 are dispersed areas emphasizing motorcycle trails, and six are intensive use areas.

According to the 1991 Washington State Trails Plan, 15 percent of households use a utility-size 4-wheel drive vehicle off road; 12 percent motorcycle off road; and 10 percent use short-base 3- or 4-wheel all-terrain vehicles. Established trail miles for these activities are, respectively: 200 miles, 2,400 miles and 600 miles.

The number of areas that do not have managed trails is unknown. However, ORV recreation has not been highly regulated. Even with managed trails, there is strong potential for water quality degradation. Major managers of off-road vehicle recreation in Washington are the US Forest Service and the DNR. Both agencies participate in IAC's Non-Highway and Off-Road Vehicle Activities (NOVA) grant program, which funds recreational off-road vehicle facilities. Environmental responsibility is a keystone policy for IAC's NOVA program.

Nonpoint Pollution Associated with Off-Road Vehicles

Most off-road users recreate near water. The potential for disturbing stream banks and causing erosion and sedimentation is high.

There are no findings concerning off-road vehicles.

Additional actions to improve water quality

- Include water quality considerations in regular or required updates of grant funding policy plans (Rec 3)

Other Recreational Activities

Description

Increased recreational use has an impact on the quality of the State's water. However, very little work has been done to measure those impacts. Rivers are popular places to recreate. During salmon runs, Puget Sound rivers experience an explosion of fishermen. Windsurfing, hiking, kayaking, and other recreational activities can have an extreme impact on human health and water quality.

For example, in 1994, a Norwalk virus outbreak occurred in Samish Bay. Norwalk virus is associated with raw human sewage, but the source in this case was never identified. More than 40 people became ill with gastroenteritis and resulted in over 2700 acres of shellfish beds being downgraded to prohibited or restricted for shellfish harvest.

There are no findings for other recreational activities.

Actions to improve water quality

- Investigate impacts on water quality from recreational activities. (Rec 1)
- Establish a system of review than ensures that public lands have adequate toilets and solid waste disposal facilities. (Rec 2)